

164.1017.01

IN THE SPECIFICATION:

Please amend the paragraph at page 8, line 21, to page 9, line 3, as follows:

- U.S. Patent Application Serial No. 09/475,716, Express Mail Mailing No. , filed December 30, 1999 in the name of Reza Majidi-Ahy and Subir Varma, attorney docket number 164.1003.01, titled "Integrated Self-Optimizing Multi Parameter and Multi Variable Point to Multi Point Communication"

Please amend the paragraph at page 9, lines 18 to 21, as follows:

- U.S. Patent Application Serial No. 09/604,784, No. , Express Mail Mailing No. EI524781225US, filed June 26, 2000, in the name of Reza Majidi-Ahy, attorney docket number 164.1010.01, titled "High-Capacity Scalable Integrated Wireless Backhaul for Broadband Access Networks."

Please amend the Abstract as follows:

A. The invention provides a method and system for adaptive point to multipoint wireless communication. The method and system integrate adaptive and dynamic responsiveness for communication parameters related to multiple characteristics of wireless communication links, both

164.1017.01

for a single sender and a single receiver, and for sets of multiple senders and multiple receivers. Moreover, the method and system are self-optimizing in the sense that they are adaptively and dynamically responsive to results of attempts to optimize parameters related to multiple characteristics of wireless communication links. Multiple characteristics of wireless communication links are optimized simultaneously, in that the optimal set of values for a plurality of N characteristics, rather than N individual optimal values for each characteristic, is adaptively and dynamically selected. A wireless PHY layer and a wireless MAC layer collectively include a set of communication parameters, each of which is adaptively modified by a BSC for communication with a plurality of CPE. The BSC adjusts communication with each CPE individually and adaptively in response to changes in communication characteristics, including both changes in communication characteristics between the BSC and each selected CPE, and changes in communication characteristics induced by concurrent communication between the BSC and multiple CPE. Particular communication characteristics adapted for can include physical characteristics, transport characteristics, and application characteristics. A wireless transport layer includes adaptive and dynamic characteristics responsive to communication characteristics between the BSC and each selected CPE, and between the BSC and multiple CPE. These communication characteristics are responsive to each individual communication link so as to optimize communication bandwidth between the BSC and each selected CPE. These include (a) BSC control of a TDMA protocol, preferably TDD; (b) BSC control of frequency reuse for CPE, and (c) BSC control of spatial separation of LOS, OLOS, or NLOS communication paths with CPE; each responsive to measured BER and requested communication bandwidth demand. The BSC provides point-to-point and point-

164.1017.01

B3
cont.

~~to multipoint wireless communication services using parameters continuously adaptive to current conditions, each individualized to one or more selected CPE. The wireless transport layer includes burst mode messages from the BSC downstream to individual CPE, and similarly includes burst mode messages from individual CPE upstream to the BSC. This allows the BSC and each individual CPE to communicate so as to optimize throughput in a communication direction (downstream or upstream) for each communication link between the BSC and an individual CPE.~~
